

LINCOLN CITY/LANCASTER COUNTY PLANNING STAFF REPORT

for October 27, 2004 PLANNING COMMISSION MEETING

P.A.S.: Nature Meadows Community Unit Plan
Co. Special Permit #04056, Preliminary Plat #04026

Note: This is a combined staff report for related items. This report contains a single background and analysis section for all items. However, there are separate conditions provided for each individual application.

PROPOSAL: A community unit plan and preliminary plat for four acreage residential units.

LOCATION: Northwest of the intersection of S 120th and Stagecoach Road.

WAIVER REQUESTS:

1. Ornamental street lighting.
2. Sidewalks.
3. Street trees.
4. Landscape screens.
5. Stormwater Detention.
6. Block length.

LAND AREA: 75.49 acres, more or less.

CONCLUSION: This is an AG Community Unit Plan, proposing to “cluster” the allowed dwelling units to four acreage lots. Waivers requested are typical of a rural subdivision and are provided for in the code. A 20% bonus is being requested.

RECOMMENDATION:

Co. Special Permit #04056
Preliminary Plat # 04026

Conditional Approval
Conditional Approval

Waivers

- | | |
|-------------------------|----------|
| 1. Ornamental lighting | Approval |
| 2. Sidewalks | Approval |
| 3. Street trees | Approval |
| 4. Landscape screens | Approval |
| 5. Stormwater Detention | Approval |
| 6. Block length | Approval |

GENERAL INFORMATION

LEGAL DESCRIPTION: The East Half of the SE 1/4 of Section 31, T8N, R8E of the 6th P.M., Lancaster County, Nebraska. Further described in attached legal.

EXISTING ZONING: AG Agriculture

EXISTING LAND USE: Farm land/pasture, on farmstead/buildings to be removed.

SURROUNDING LAND USE AND ZONING: Agricultural land in AG zoning on all sides. Acreages along the county road to the west. One farm house is on the east side, across the street, of this parcel.

HISTORY: Changed from AA Ruraland Public Use to AG Agriculture with the adoption of the 1979 Zoning Update.

COMPREHENSIVE PLAN SPECIFICATIONS: The 2025 Comprehensive Plan shows this area as Agriculture, Agriculture Stream Corridor and Environmental Resource along the stream. A “future County Trail” appears to follow the abandoned rail line that passes through this application. This is outside the Lincoln growth tiers. A cluster is permitted by special permit in the AG district. In relation to clustering the Comprehensive Plan states:

Currently, acreage development has occurred under two development scenarios: AG - Agricultural District (minimum of 20 acres per lot) and AGR - Agricultural Residential District (minimum of 3 acres per lot) with the possibility in both AG and AGR zoning districts of clustering units together in order to preserve more open space and agricultural areas and/or receive additional density bonuses under a community unit development. The complex issue of acreage development and other public objectives requires a large array of land use strategies (pg F 70)

Acknowledge the “Right to Farm” and preserve areas for agricultural productions throughout the county by designating specific areas in advance for rural residential so as to limit areas of potential conflict between farms and acreages (pg F 70)

Retain the current overall density of 32 dwellings per square mile (20 acre) for all agriculturally zoned land. Provide for an ability to divide two 3 acre lots per “40” acre parcel with conditions and administrative review and right of appeal. This would allow more flexibility for parcel size while retaining the overall density and assist in retaining farmable units of land. (F 70)

In determining areas of higher density rural acreage (200 units or more per square mile), numerous factors will be reviewed, such as but not limited to water and rural water districts, soil conditions, roads, agricultural productivity, land parcelization, amount of existing acreages, and plans for urban or town development. Acreages should develop in areas that best reflect the carrying capacity of that area for acreages. A performance criteria should be developed to review requests for acreage zoning and to determine where these standards can best be met. (F 70)

Development of a performance standard "point system" will allow the location of higher density rural acreage development in either "AG" or "AGR" where the review criteria can be met. This allows equal treatment across the county, maximum freedom of determination of marketing and sale, while locating those developments only in those areas where sufficient "points" can be accumulated to justify the development at the requested location." (F 71)

Environmental Resources: Land and water masses which are of particular importance for maintenance and preservation, such as saline wetlands, native prairie, and some floodway and riparian corridors. Such areas may be either publicly or privately owned.

Agricultural Stream Corridor: Land intended to remain in open space, predominately in agricultural use, but that may also include parks, recreation fields, or parking areas when near future commercial, industrial, or public uses. Such areas will be primarily privately owned, but may also include some public ownership or easements. These areas are mostly in the 100 year floodplain, outside of the existing Lincoln urban development. (F 22)

Riparian, Floodplains, and Stream Corridors – Streams and their adjoining corridors snake their way through much of Lancaster County. Throughout the region, surface water runoff flows into these stream corridors that typically consist of floodplains and riparian areas. These are instrumental in providing habitat and water infiltration benefits, along with serving as connectors to natural areas. (F55)

UTILITIES: This is in a rural water district. Individual waste water treatment and well water is proposed. The groundwater report shows adequate quantity and quality.

TOPOGRAPHY: The property is rolling, draining to the south.

TRAFFIC ANALYSIS: Stagecoach Road, Wagon Train Road and S 120th are gravel county roads. Wagon Train Road and S. 120th north are shown for Future Road Improvements. A future trail is shown on the abandoned rail line.

PUBLIC SERVICE: This area is served by Bennet Rural Fire District. This is in the Norris School District # 160. This is in the Norris Public Power service area.

REGIONAL ISSUES: Expansion of the acreage areas. Clustering to preserve farm land and floodplain.

ENVIRONMENTAL CONCERNS: The Historic and Ecological Resources survey shows no resources on this property. Hedgefield Lake is located one half mile south of this application. Wagon Train State Lake is located one and one-half mile west. The soil rating is 3.5, on a scale of 1 to 10 where 1-4 are prime ag land. This is prime land. About 75 - 80 % of this parcel is in 100 year flood plain.

AESTHETIC CONSIDERATIONS: na

ALTERNATIVE USES: All uses allowed in the AG district. Three 20+ acre lots.

ANALYSIS:

1. This request is for a Special Permit for a Community Unit Plan for 4 acreage residential lots. No internal streets are proposed. Individual sewer and water is proposed. A 20% dwelling unit bonus is being requested for preservation of the farm land.
2. Typical cluster acreage lots are in the three acre size range. Additional farm land/flood plain could be preserved by proposing three acre lots rather than the 20 acre lots proposed. Another purpose of the "cluster" CUP technique is to reduce the number of access points to public streets. This layout proposes to string lots along the county roads with four accesses off those roads plus farm access. It would be far better to cluster the two northerly lots out of the floodplain and have one common access. The two southern lots again could be reduced in size and share a common access to the county road.
3. The flood plain area is about 80% of the parcel and should be retained as an outlot. If included in the 20 acre lot, a conservation easement should be applied.
4. This request is in general conformance with the Comprehensive Plan.
5. The Planning Department issued a draft Performance Standard and Acreage Development Strategy on September 17th 2003. Under that proposal, a raw score of 300 could lead to support for a requested change of zone to AGR. Other bonuses could be available based on the score. The raw score for this parcel is - 113.
6. The density calculations for the project are as follows;

75.49 acres at 1 dwelling per 20 acres	=	3.77 dwellings
20% bonus requested X 1.20	=	4.53 dwellings
		4 dwellings permitted
Requested		4 units on 4 lots
7. There were no conflicting farm uses, such as feedlots, noted in the immediate area.
8. This reflects the normal adjustments to accomplish a cluster style of subdivision through the CUP, however, the lot size is much larger than typical and the lot arrangement is less than desirable with multiple accesses to the county road.

9. Waivers are requested for street lights, sidewalks, block length, street trees, storm drainage and screening. These are typical waivers required, provided for and appropriate for agriculture/acreage clusters. Yards are adjusted from AG to AGR standards as part of the cluster.
10. The County Engineer's memo of October 7 notes several issues and corrections.
11. The Lincoln/Lancaster County Health Department notes that two pipelines cross the parcel and they should be shown on the plan and plat.
12. Water quantity and quality are acceptable.

CONDITIONS FOR SPECIAL PERMIT #04056:

Site Specific:

1. After the applicant completes the following instructions and submits the documents and plans to the Planning Department office and the plans are found to be acceptable, the application will be scheduled on the County Board's agenda: (NOTE: These documents and plans are required by resolution/ordinance or design standards.)
 - 1.1 Make the corrections requested by the County Engineer in his letter of October 7, 2004.
 - 1) 60.00' of dedication for Wagon Train Road, South 120th Street and Stagecoach Road.
 - 2) Profile is needed for Stagecoach Road to ensure safe access for Lot 3. If possible, a common access for Lots 3 and 4 should be shown.
 - 3)"Only one access per lot will be permitted" shall be shown on the final plat.
 - 4) A large portion of the property is in 100 year FEMA flood plain. The flood plain shall be studied and flood elevations shown on the drawing along with minimum building elevations on each lot.
 - 5) A general note shall be added to describe the relinquishment of access details to Wagon Train Road, South 120th Street and Stagecoach Road.
 - 6) Grading shall extend around the temporary turnaround.
 - 1.2 Revise the drawing to show Lots 1 and 2 as smaller lots, out of the floodplain.

- 1.3 Revise the drawing to show common access points for Lots 1 and 2 and Lots 3 and 4 to the County Road.
 - 1.4 Revise note #11 to include waiver of block length.
 - 1.5 Show the 100 year flood plain and minimum building envelopes.
 - 1.6 Show Outlots A and B as one outlot or show two Blocks and renumber the lots.
 - 1.7 Show the use of the Outlots.
 - 1.8 Show the contour elevations.
 - 1.9 Show the minimum opening elevation.
 - 1.10 Show the existing pipelines and easements.
2. This approval permits 4 single family lots.

General:

3. Before receiving building permits:
- 3.1 The permittee is to submit a revised site plan and the plan is found to be acceptable.
 - 3.2 The permittee is to submit six prints and a permanent reproducible final site plan as approved by the County Board.
 - 3.3 The construction plans are to comply with the approved plans.
 - 3.4 The final plat(s) is/are approved by the County Board.
 - 3.5 The County Board approves associated requests:
 - 3.5.1 Nature Meadows Estates Preliminary Plat #04026.
 - 3.5.2 A waiver to the sidewalk, street lights, landscape screen, stormwater detention and street tree requirements since the area is of larger lots, a rural nature and the subdivision will not be annexed.
 - 3.5.3 A modification to lot area, frontage and setbacks as part of the CUP.

3.5.4 A modification to the requirements of the land subdivision resolution to permit a block length in excess of 1320' along the north, south, east and west perimeter of this subdivision.

3.6 The County Engineer has approved:

3.6.1 An agreement for street maintenance.

STANDARD CONDITIONS:

4. The following conditions are applicable to all requests:

- 4.1 Before occupying this Community Unit Plan all development and construction is to comply with the approved plans.
- 4.2 Before occupying this Community Unit Plan, City/County Health Department is to approve the water and waste water systems.
- 4.3 All privately-owned improvements are to be permanently maintained by the owner or an appropriately established homeowners association approved by the County Attorney.
- 4.4 The site plan accompanying this permit shall be the basis for all interpretations of setbacks, yards, locations of buildings, location of parking and circulation elements, and similar matters.
- 4.5 This resolution's terms, conditions, and requirements bind and obligate the permittee, its successors and assigns.
- 4.6 The County Clerk is to file a copy of the resolution approving the permit and the letter of acceptance with the Register of Deeds. The Permittee is to pay the recording fee.

CONDITIONS FOR PRELIMINARY PLAT #04026:

Site Specific:

- 1. After the subdivider completes the following instructions and submits the documents and plans to the Planning Department office, the preliminary plat will be scheduled on the City Council/County Board agenda: (NOTE: These documents and plans are required by ordinance or design standards.)

- 1.1 Make the corrections requested by the County Engineer in his letter of October 7, 2004.
 - 1) 60.00' of dedication for Wagon Train Road, South 120th Street and Stagecoach Road.
 - 2) Profile is needed for Stagecoach Road to ensure safe access for Lot 3. If possible, a common access for Lots 3 and 4 should be shown.
 - 3)"Only one access per lot will be permitted" shall be shown on the final plat.
 - 4) A large portion of the property is in 100 year FEMA flood plain. The flood plain shall be studied and flood elevations shown on the drawing along with minimum building elevations on each lot.
 - 5) A general note shall be added to describe the relinquishment of access details to Wagon Train Road, South 120th Street and Stagecoach Road.
 - 6) Grading shall extend around the temporary turnaround.
- 1.2 Revise the drawing to show Lots 1 and 2 on smaller lots out of the floodplain.
- 1.3 Revise the drawing to show common access points for Lots 1 and 2 and Lots 3 and 4 to the county road.
- 1.4 Revise note #11 to include waiver of block length.
- 1.5 Show the 100 year flood plain and minimum building envelopes.
- 1.6 Show Outlots A and B as one outlot or show two Blocks and renumber the lots.
- 1.7 Show the use of the Outlots.
- 1.8 Show the contour elevations.
- 1.9 Show the minimum opening elevation.
- 1.10 Show the existing pipelines and easements.
2. The County Board approves associated requests:
 - 2.1 County Special Permit # 04056 for the Community Unit Plan.

- 2.2 A waiver to the storm water detention, sidewalk, street paving, street lights, landscape screen, and street tree requirements since the area is of larger lots, a rural nature and the subdivision will not be annexed.
- 2.3 A waiver to the lot area, setbacks and frontage.
- 2.4 A modification to the requirements of the land subdivision ordinance to permit a block length in excess of 1320' along the north, south, east and west perimeter of this subdivision.

General:

- 3. Final Plats will be scheduled on the Planning Commission agenda after:
 - 3.1 Streets, water facilities if rural water, drainage facilities, temporary turnarounds and barricades, and street name signs have been completed.
 - 3.2 The subdivider has signed an agreement that binds the subdivider, its successors and assigns:
 - 3.2.1 To submit to the County Engineer an erosion control plan.
 - 3.2.2 To protect the remaining trees on the site during construction and development.
 - 3.2.3 To submit to lot buyers and home builders a copy of the soil analysis
 - 3.2.4 To complete the private improvements shown on the preliminary plat.
 - 3.2.5 To maintain the outlots and private improvements on a permanent and continuous basis. However, the subdivider may be relieved and discharged of this maintenance obligation upon creating in writing a permanent and continuous association of property owners who would be responsible for said permanent and continuous maintenance. The subdivider shall not be relieved of such maintenance obligation until the document or documents creating said property owners association have been reviewed and approved by the County Attorney and filed of record with the Register of Deeds.
 - 3.2.6 To relinquish the right of direct vehicular access to Stagecoach Road, S. 120th Street and Wagon Train Road except for two combined lot accesses and a farm access shown on the plat.

3.2.7 To comply with the provisions of the Land Subdivision Resolution regarding land preparation.

Prepared by:

Mike DeKalb, 441-6370, mdekalb@lincoln.ne.gov
Planner
October 10, 2004

APPLICANT: Craig Gana
2200 W. Panama Road
Martell, NE 68404
402) 794 - 0220

OWNER: DGD LLC
2200 W. Panama Road
Martell, NE 68404
402) 794 - 0220

CONTACT: Matt Langston,
ESP
601 Old Cheney Road, Suite A
Lincoln, NE 68512
402 - 421 - 2500



2002 aerial

Co. Preliminary Plat #04026

Co. Special Permit #04056

Nature Meadows

S. 120th & Stagecoach Rd.

Zoning:

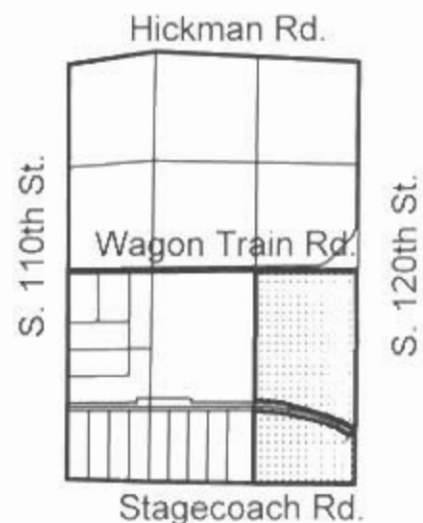
One Square Mile
Sec 31 T08N R8E

- R-1 to R-10 Residential District
- AG Agricultural District
- AGR Agricultural Residential District
- R-C Residential Conservation District
- O-1 Office District
- O-2 Suburban Office District
- O-3 Office Park District
- R-T Residential Transition District
- B-1 Local Business District
- B-2 Planned Neighborhood Business District
- B-3 Commercial District
- B-4 Lincoln Center Business District
- B-5 Planned Regional Business District
- H-1 Interstate Commercial District
- H-2 Highway Business District
- H-3 Highway Commercial District
- H-4 General Commercial District
- I-1 Industrial District
- I-2 Industrial Park District
- I-3 Employment Center District
- P Public Use District



Zoning Jurisdiction Lines

City Limit Jurisdiction



Lincoln City - Lancaster County Planning De

NATURE MEADOWS
PRELIMINARY PLAT & C.U.P.

The map is a topographic representation of a landscape. It features contour lines indicating elevation. A proposed road, labeled 'STAGECOACH ROAD', runs vertically on the right side. Another road, 'WAGON TRAIN ROAD', is on the left. At the top, 'S. 120th STREET' is marked. Several points of interest are labeled, including 'OUTLET "A" 11.18 AM', 'OUTLET "B" 8.64 AM', and 'BLOCK 2 28.18 AM'. The map also shows various distances and bearings along the proposed road alignment, such as 'S. 89° 41' 10" E 27.00 FT' and 'S. 89° 41' 10" E 27.00 FT'. The map is oriented with North at the top.

THE

VICINITY MAP

THOSE WHO
KNOW THE AREA

801 Old Cherry Road
Suite "A"
Lynch, NC 28612
(405) 451-9300

DISORDERLY CONDUCT

1

SURVEYOR'S CERTIFICATE
I, Lyle Lott, a Registered Professional Land Surveyor under the laws of the State of Nebraska, certify that the foregoing plat was prepared by me, or under my direct supervision. The same is a true and correct copy of the original plat on file in my office.

Left _____ L.S. No.

APPROVAL

The foregoing plat was approved by the Lincoln County Planning Commission on _____ 1993.

ACCEPTANCE

The foregoing Community Unit Plan was approved and accepted by the Leicester County Board of Commissioners, beginning by Resolution _____, dated the _____ day of _____, 2004.

ATTEST:

GENERAL NOTES

1. This Preliminary Plat/C.U.P. Contains 75.49 Acres More Or Less.
2. This Preliminary Plat/C.U.P. Permits 4 Single Family Lots 2 Outlots. Each Contain A Maximum Of One Single Family Residence And Out Buildings, All Located Within The Building Envelopes As Shown And/ Or Noted.
3. The Current Zoning Is 'AG' & The Proposed Zoning Is 'AG' With C.U.P. With 20% Density Bonus For Farm Land Preservation.
4. The Maximum Building Height Shall Not Exceed 35' As Per 'AG' Zoning.
5. The Developer/ Or Owner Reserves The Right To Build Anywhere Within The Building Envelopes Shown.
6. The Developer Proposes The Use Of Individual Water Wells For Potable Water Supply.
7. The Developer Proposes The Use Of Individual Waste Water Systems. If Percolation Test Do Not Permit Subsurface Fields, Lagoons Shall Be Installed. Waste Water Systems Shall Be Approved By The Lancaster County Health Department.
8. All Curvilinear Dimensions Are Chord Lengths.
9. All Topographic Contours Are NAVD 88 Datum.
10. Only One Access Shall Be Permitted Per Each Residential Lot.
11. The Following Waivers Are Approved With This Preliminary Plat: Sidewalks, Street Trees, Street Lighting, And Landscape Screening.
12. Future Lot Owners Will Be Advised That This Is In A Rural Farm Area And That Normal And Customary Farm Activities Are Not A Nuisance.
13. Farm Accesses Are For Agricultural Uses Only. Any Other Use Will Forfeit And Relinquish That Access.

PROJECT
LOCATION

MARTELL RD.

**Co. Preliminary Plat #04026
Co. Special Permit #04056
Nature Meadows
S. 120th & Stagecoach Rd.**

PARCEL 'A'

A tract of land located in the Southeast 1/4 of Section 31, T.8 N., R.8 E. of the 6th P.M., Lancaster County, Nebraska, more particularly described as follows:

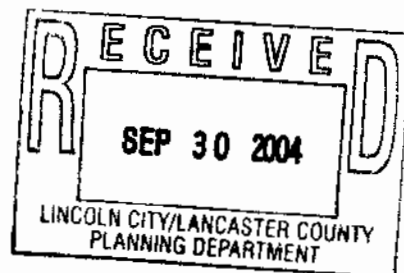
Commencing at the southeast corner of said Section 31 and extending thence N 89°18'56" W, 1327.23 feet;
Thence N 00°48'05" E, 1037.70 feet to the point of beginning;
Thence continuing on said bearing 1639.69 feet;
Thence N 89°25'10" E, 1289.43 feet;
Thence S 00°41'32" W, 1956.78 feet;
Thence N 63°45'30" W, 8.22 feet to a point on a circular curve to the left with a central angle of 16°51'14", a radius of 2914.93 feet and whose chord (854.36 feet) bears N 72°11'07" W;
Thence along the arc of said curve 857.44 feet;
Thence N 09°23'16" E, 25.00 feet to a point on a circular curve to the left with a central angle of 9°08'23", a radius of 2939.93 feet and whose chord (468.47 feet) bears N 85°10'55" W;
Thence along the arc of said curve 468.97 feet;
Thence S 00°14'54" W, 25.00 feet;
Thence N 89°48'05" W, 5.06 feet to the point of beginning containing 51.47 acres, more or less.

PARCEL 'B'

A tract of land located in the Southeast 1/4 of Section 31, T.8 N., R.8 E. of the 6th P.M., Lancaster County, Nebraska, more particularly described as follows:

Commencing at the southeast corner of said Section 31 and extending thence N 89°18'56" W, 1327.23 feet;
Thence N 00°48'05" E, 33.00 feet to the point of beginning;
Thence continuing on said bearing 904.70 feet to a point on a circular curve to the right with a central angle of 26°06'58", a radius of 2814.93 feet and whose chord (1272.00 feet) bears S 86°48'59" E;
Thence along the arc of said curve 1283.08 feet;
Thence S 63°45'30" E, 56.02 feet;
Thence S 00°41'32" W, 605.23 feet;
Thence N 89°18'56" W, 1294.17 feet to the point of beginning containing 24.02 acres, more or less.

Co. Preliminary Plat #04026
Co. Special Permit #04056
Nature Meadows
S. 120th & Stagecoach Rd.





LYLE L. LOTH, P.E./L.S.

September 27, 2004

Suite A - 601 Old Cheney Road
Lincoln, NE 68512

Phone (402) 421-2500
Fax (402) 421-7096

RE: Nature Meadows, Preliminary Plat & C.U.P.

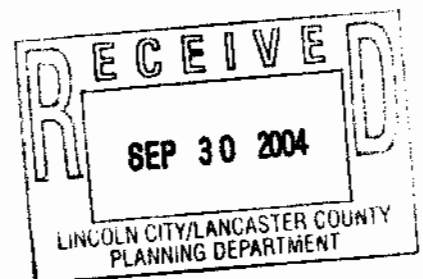
Email: lyle@espeng.com

The subdivider is proposing 4 single family lots in the proposed Subdivision as well as 2 Outlots that shall be used for continued agricultural purposes. This conforms to Section 9.03 of the Land Subdivision Resolution of the County of Lancaster, State of Nebraska.

Sincerely

A handwritten signature in black ink, appearing to read 'Matt Langston', with a horizontal line extending from the end.

Matthew C. Langston





LYLE L. LOTH, P.E./L.S.

September 27, 2004

Suite A - 601 Old Cheney Road
Lincoln, NE 68512

Phone (402) 421-2500
Fax (402) 421-7096

RE: Nature Meadows, Preliminary Plat & C.U.P.

Email: lyle@espeng.com

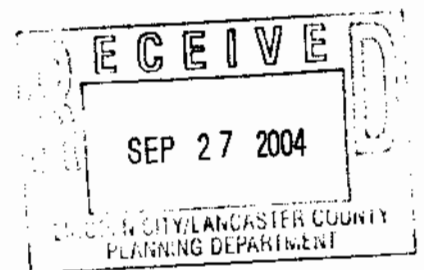
The subdivider is proposing 4 single family lots in the proposed Subdivision as well as 2 Outlots that shall be used for continued agricultural purposes.

This developer is requesting a waiver of sidewalks, street trees, street lighting, and landscape screening as to keep with the rural surroundings of the area.

Sincerely

A handwritten signature in cursive script that reads 'Matt Langston'.

Matthew C. Langston



Lancaster


DON R. THOMAS - COUNTY ENGINEER

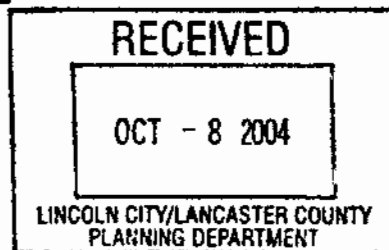
County

Engineering

Department

DEPUTY- LARRY V. WORRELL
COUNTY SURVEYOR

DATE: October 7, 2004
TO: Mike DeKalb
Planning Department
FROM: Larry V. Worrell 
County Surveyor
SUBJECT: NATURE MEADOWS
PRELIMINARY PLAT AND CUP



Upon review, this office would have the following comments:

- 1) 60.00' of dedication for Wagontrain Road, South 120th Street and Stagecoach Road
- 2) Profile is needed for Stagecoach Road to ensure safe access for Lot 3. If possible, a common access for Lot 3 and Lot 4 should be shown.
- 3) "Only one residential access per lot will be permitted" shall be shown on the Final Plat.
- 4) A large portion of the property is in the 100 Year FEMA Flood Plain. The flood plain shall be studied and flood elevations shown on the drawing along with minimum building elevations on each lot.
- 5) A General Note shall be added to describe the relinquishment of access details to Wagon Train Road, South 120th Street and Stagecoach Road.

LVW/DP/cm

SUBDIV.WK/Nature Meadows First Comments.Mem

John P Callen

10/11/2004 04:16 PM

To: Michael V Dekalb/Notes@Notes
cc: Terry A Kathe/Notes@Notes, Dale L Stertz/Notes@Notes
Subject: Nature Meadows - County Preliminary Plat

Building and Safety has the following comments relating to floodplain issues for the Nature Meadows preliminary plat:

- Flooding elevations should be determined and shown on the plat, along with existing grade elevations/contours in NAVD 88 Datum and extents of flooding.
- Based on the above, required lowest floor elevations should be determined for the lots that abut the floodplain.

John P. Callen, EIT, CFM
Associate Engineer
City of Lincoln Dept. of Building and Safety
(402) 441-4970

GROUNDWATER REPORT

NATURE MEADOWS

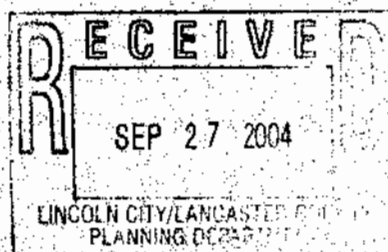
SOUTH 120TH STREET AND STAGECOACH ROAD

E1/2 SE1/4 SECTION 31, T. 8 N., R. 8 E.

LANCASTER COUNTY

Petitioner: Lyle Loth, ESP
Developer: Craig Gana
Prepared by Vincent H. Dreeszen, Hydrogeologist

09/27/04



Report of Groundwater Investigation

NATURE MEADOWS

E1/2 SE1/4, Section 31, T. 8 N., R. 8 E.

South 120th Street and Stagecoach Road

Nature Meadows is a community unit plan for four lots in the E1/2 SE1/4 Section 31-8N-8E. The total area in the subdivision is about 80 acres including the Right-of-Way of the abandoned Missouri Pacific Railroad across the south half of the subdivision. (Figure 1 and 2). Two of the lots numbers 3 and 4 are south of the ROW and are about 7.7 and 6.7 acres in size respectively. The other two lots are in the north half of the subdivision, Block 2, Lots 1 and 2 and are about 20 acres each. Outlot A, north of the ROW consists of 11 acres and Outlot B in the southeast corner has about 9.5 acres. Stagecoach Road is the south boundary of the tract and south 120th Street is the east boundary.

The subdivision is about 4 miles east of Hickman, about one and one-half miles west of Panama, and one and one-half miles northeast of Holland. It is a mile southeast of Wagon Train Lake.

The development for the most part lies within the valley of Hickman Branch of Salt Creek. The two branches of Hickman drain to the west. Elevations in the valley range from about 1180 to 1190 feet above mean sea level (msl). Depths to water in the valley are shallow ranging from less than 10 feet to about 15 feet. Ground elevations in the hill in the southeast and northeast corners range from about 1310 to 1330 feet above msl. (Firth 7.5 Minute Topographic Quadrangle).

The area is located in the dissected glaciated hills of eastern Nebraska. Glacial deposits overlie relatively high bedrock of Permian age. The bedrock high is on the north flank of a

major paleovalley lying several miles to the south. A tributary to the paleovalley trending north to south occurs to the west of the proposed development in the east half of Section 30 to the west and in the southeast corner of Section 31 both in T. 8 N.-R. 8 E.

Known aquifers in the area include glacial sands in the paleovalleys, post-glacial sands in the creek valleys and limestones in the Permian bedrock. Records of 16 wells and tests drilled on lots along Stage Coach Road to the west of the proposed development were made available to this investigator by the Moser Well Company. Glacial sands are the source for some wells in the paleovalley in the southwest portion of Section 31. The glacial sands appear to be absent in the hills to the east adjoining the proposed development. A few wells were completed in limestones of the Permian. In some cases water was obtained by moving north into the valley of Hickman Creek.

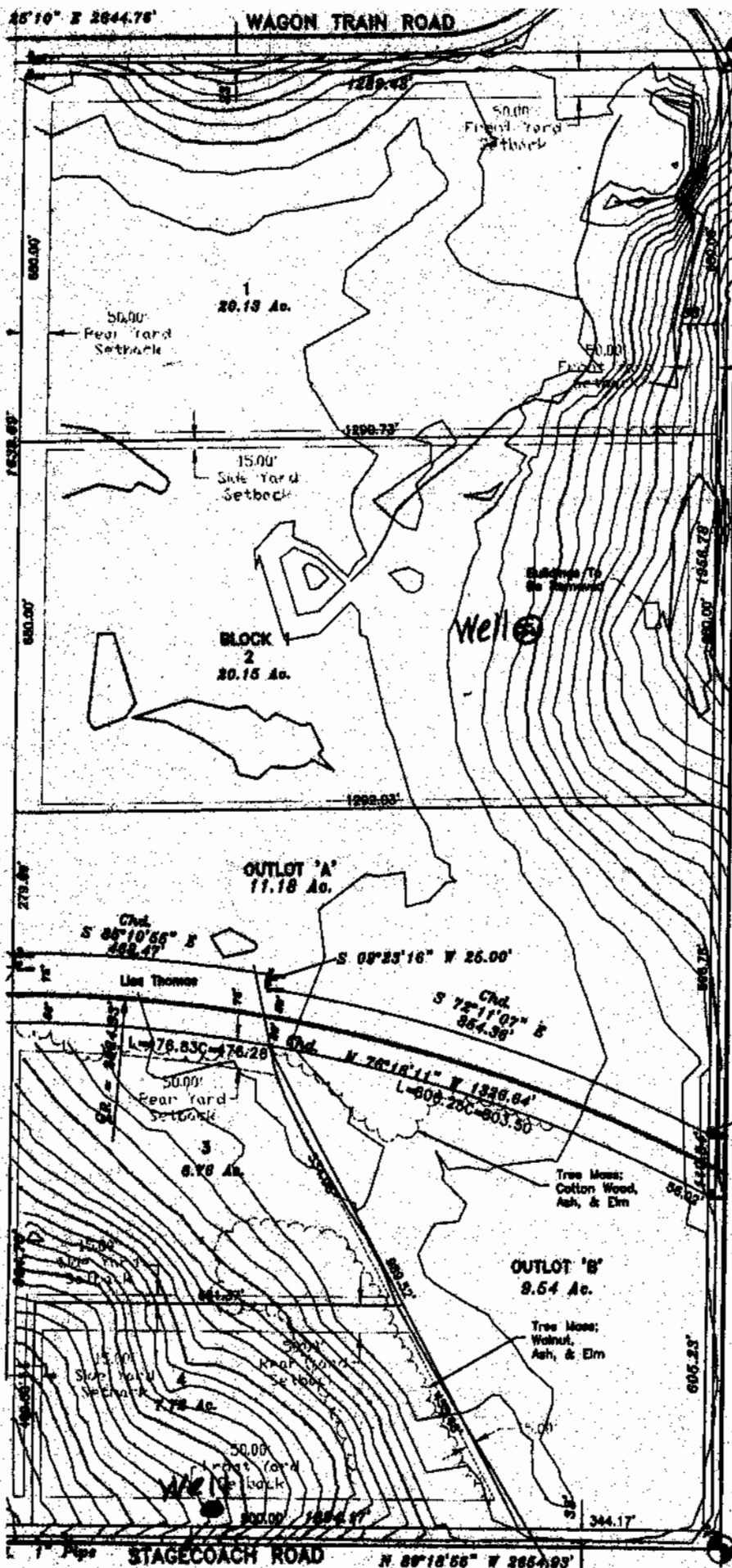
Two wells have been completed in this subdivision and drillers logs are attached to this report. One well in Lot 2, Block 1 to the west of South 120th Street is completed in sand. The second well was drilled in Lot 4 along Stagecoach Road. That well was completed to 164 feet in limestone. The potential for developing a well in Lot 1, Block 1 is quite good. It is expected that a well can be developed in alluvial sands in the creek valley. The possibility for a well on Lot 3 is quite good. It should be possible to develop a well on the hill in limestone or a well in sand in the valley portion of the lot. More than one test well may be required to locate an adequate water supply.

Water samples were obtained for each of the existing wells and analyzed for inorganic chemical constituents. Copies of the analyses are attached to this report. Water quality in the two wells are similar. The water is hard, slightly more than 300 ppm. Sodium and chloride is low as is nitrate as N. Sulfate is relatively low, 148 and 161 ppm. Iron is 0.3 ppm in each well

and manganese is 0.50 and 0.60 ppm. The water is potable but many would opt for softening because of hardness and iron-manganese.

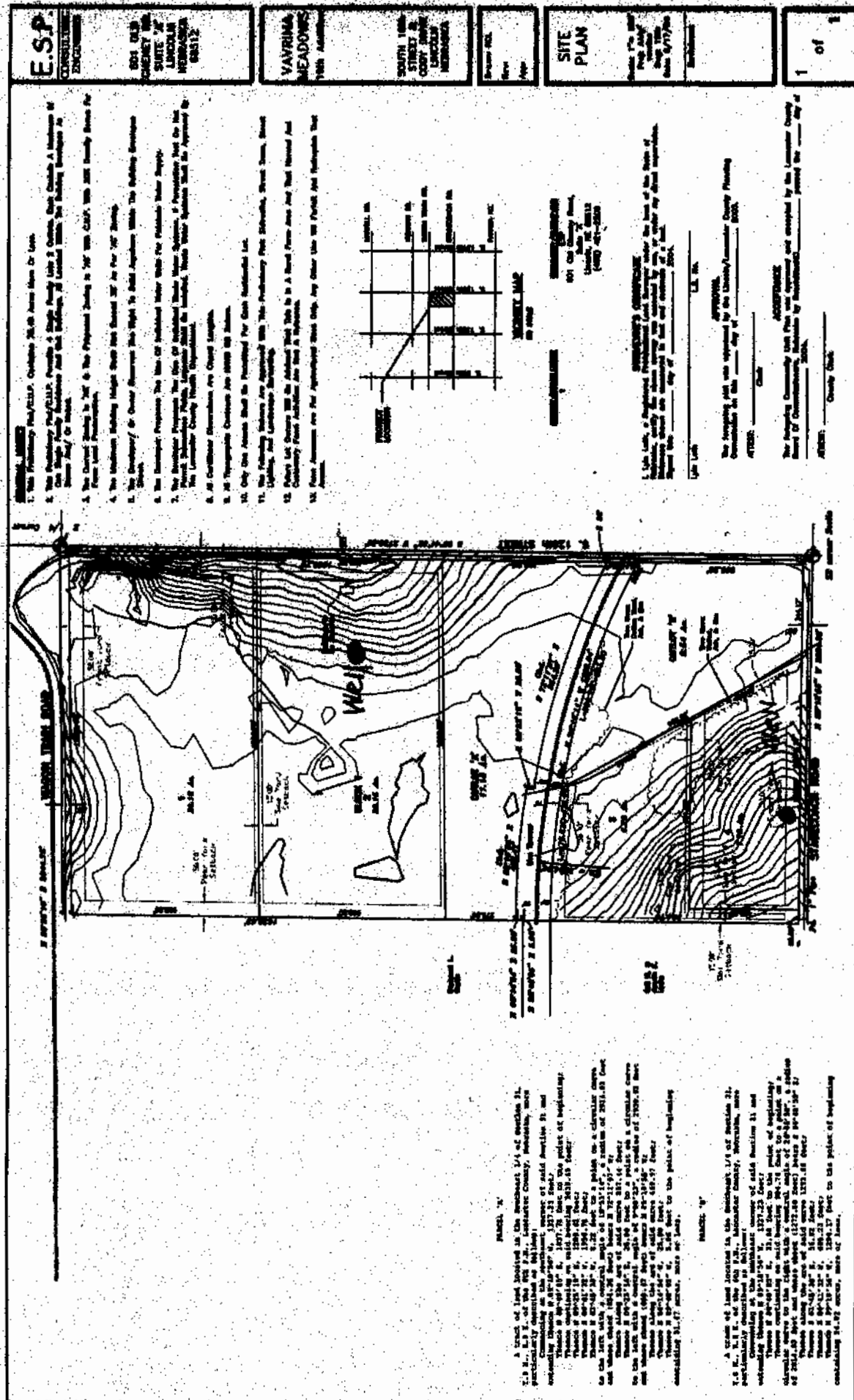
The water supply should be adequate for private domestic wells. Both existing wells are reported to have yields of more than 10 gpm.

There is a second old small diameter well near the existing supply well, west of South 120th Street (Lot 1), which should be properly decommissioned.

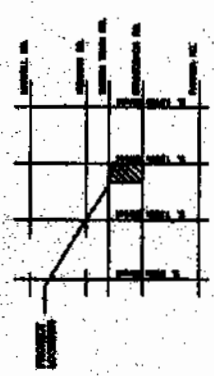


Nature Meadows
Fig. 1

Fig. 2
Nature Meadows



1. The boundary of the meadow is shown by a dashed line.
2. The well is located in the center of the meadow.
3. The survey points are marked with numbers 1 through 12 and letters A through F.
4. The contour lines indicate elevation from 100 to 150 feet.
5. The property line is shown by a dashed line.
6. The highway is shown by a solid line with a center line.
7. The stream is shown by a wavy line.
8. The trees are shown by small circles with crosses.
9. The shrubs are shown by small circles with dots.
10. The grass is shown by small circles with crosses.
11. The water is shown by a wavy line.
12. The map is oriented with North at the top.



ACCEPTANCE

The foregoing plat was approved by the Lincoln/Lincoln County Planning Commission on this ____ day of _____, 2000.

ATTEST: _____

The foregoing Community Use Plan was approved and accepted by the Lincoln County Board of Commissioners, subject to the following: _____

ATTEST: _____

County Clerk

WATER WELL DATA SHEET

LOCATION: _____ DATE: _____ COUNTY: _____

OWNER: Hermit Trust WELL # 52-77

DRILLER: Truman DATE: 7-7-77

STATIC WATER LEVEL: 116 (16') 6 PM 75

56' - 4" PVC 200# Nature Meadows

10' - 18' slot 160# screen Lot 1

started at 45 RPM

about 35 when I pulled

air line out of screened

area.

0-5 dark brown

5-15 light brown

15-35 sticky yellow clay

35-43 blue clay

43-56 fine gray sand

56-65 bluish

65-85 yellow clay

85-130 glacial till

130-140 light colored clay

140-142 black shale

142-152 hard gray shale

Casing went down about 7 ft. pulled
it out and made another well

LANCASTER / NEMAHA

T 8 R 8 SEC 92

31

Sep 23 04 02:40p

MDs Pharma Serv Lnk Ne

Sep 23 2004 03:01PM P3
402 470 7500

P.5

MDS Harris

624 Peach Street
Lincoln, NE 68502

Tel: 402 476-2811
www.turf.mdsharris.com

**WATER
ANALYSIS**

Submitted For
NTSLEY

MARTELL, NE 68404

Submitted By

Gale Trucking & Excavating
2200 W. Panama Road
Martell, NE 68404

Nature Meadows

Lot 1

SAMPLE MARKED

5

LABORATORY NUMBER

04703935

DATE RECEIVED

22-Sep-2004

DATE REPORTED

23-Sep-2004

ANALYSIS OF CHEMICAL PROPERTIES			YOUR RESULTS			RATING OF YOUR RESULTS		
			UNIT OF MEASURE	RESULT	LB/ ACRE FOOT	SATISFACTORY	POSSIBLE PROBLEM	PROBABLE FURNISH
WATER DIFFERENTIAL	pH		--	7.9	---			
	Hardness		--	318.6	---			
	Bicarbonate		ppm	450.8	1226.7			
	Carbonate		ppm	0.0	0.0			
IMPACT ON GENERAL SOIL STRUCTURE	Electrical Conductivity (ECw)		mmhos/cm	1.04	---			
	Total Soluble Salts		ppm	666	1810			
IMPACT FROM SALT CONTENT	Sodium		meq/l	2.30	---			
	Chloride		ppm	22	88			
	Boron		ppm	0.10	0.30			
IMPACT FROM SOLUBLE SALT CONTENT	Sodium		ppm	53.0	144.0			
	Chloride		ppm	32	88			
IMPACT ON SOIL STRUCTURE	Sodium Absorption Ratio Adj		meq/l	3.19	---			
	Electrical Conductivity (ECw)		mmhos/cm	1.04	---			
	Total Soluble Salts		ppm	666	1810			
To maintain good soil structure in arid regions, irrigation water should have the capacity to replace the soluble salts being dissolved. If the salts being dissolved are not replaced, a decrease in permeability may occur.						No anticipated difficulty with most crops.	Some difficulty for sensitive & moderately sensitive crops	Significant difficulty for most crops

ANALYSIS OF NUTRIENTS						
PLANT NUTRIENTS AS NORMALLY REPORTED IN WATER ANALYSIS	RESULTS AS PPM	NUTRIENTS CONVERTED TO BASIC FERTILIZER MATERIAL FORMS	RESULTS LB/ACRE FOOT	MEQ/LITER		
NITRATE (NO ₃ -N)	1.78	NITROGEN (N)	4.80	CATIONS	K+	0.03
PHOSPHATE (PO ₄)	0.01	PHOSPHATE (P ₂ O ₅)	0.02		NA+	2.30
POTASSIUM (K)	1.00	POTASH (K ₂ O)	1.20		CA++	4.94
MAGNESIUM (Mg)	17.3	MAGNESIUM OXIDE (MgO)	76.5		MG++	1.40
CALCIUM (Ca)	39.0	CALCIUM (Ca)	369.3	ANIONS	CL-	0.21
SULFATE (SO ₄)	161.0	SULFUR (S)	144.9		SO4--	2.35
MANGANESE (Mn)	0.60	MANGANESE (Mn)	1.63		HCO3-	7.39
IRON (Fe)	0.30	IRON (Fe)	0.54		CO3--	0.00
BORON (B)	0.10	BORON (B)	0.30		PO4---	0.00
					NO3-	0.13

pH: 6.94
TOTAL CATIONS 8.67
TOTAL ANIONS 11.78
SAR 1.29

**STRADER'S
BLUE VALLEY DRILLING**
14734 US Hwy 77
Pickrell, NE 68422
WELL COMPLETION FORM

Roger Strader
Office: (402) 673-3463

Nature Meadows
Well Lot 4

Well Contractor's License
#39022

Name Craig Gana Date September 20, 2004

Address 2200 West Panama Road

City/State/Zip Martell, NE 68404

Phone 794-0220

N40°36'41.5" W096°33'45.5"

Location of Water Well

County: Lancaster SE 1/4 SE 1/4 Section 31 Township 8 N Range 8 E/W

Well is 174 ft. from north/south section line. 991 ft. from east/west section line. Ground Elevation _____ ft.

Distance and Direction from nearest town (or) street address (or) Block, Lot and Addition: 120th & East Stagecoach

Road - .25 west - north side of road

Well use Domestic New / ~~Rehab~~ Distance to Old Well _____ ft.

Old Well Last Used _____ Old Well Abandoned No / Yes (Date _____)

OPEN HOLE WELL

DEPTH IN FEET

FORMATION

FROM TO

0 26

26 51

51 52

52 75

75 91

91 96

96 99

99 119

119 121

121 122.5

122.5 125.5

125.5 126

126 127

127 150

150 154

154 159

159 161

161 164

Clay - brown, tan & yellow

Clay - gray & brown

Sand - fine gray

Clay - sandy gray

Clay - sandy brown

Clay - gray

Sand - very fine gray

Clay - greenish gray & gray

Limestone - white

Shale - gray

Limestone - white & brown

Clay - gray

Limestone - yellow & white

Shale - gray & red

Limestone - soft broken brown

Shale - gray & yellow

Shale - black

Shale - gray

note: 10" hole to 121'
5 1/2" hole 121' to 164'

Depth of completed well 164 ft.

Method drilled Straight rotary

Bore hole diameter 10" / 6 1/2" in.

Static water level 45 ft.

Yield _____

Pumping Water Level _____

10 gpm at 80 ft. lift

30 gpm at 140 ft. lift

_____ gpm at _____ ft. lift

Hrs. Development 1.5

Method Air

Blank Casing: Length 0-104 & 124-134 ft.

Inside diameter 5 in.

Type of Material PVC

Wall thickness or grade .265" (200#)

Joints: ~~Welded~~ / Glued / ~~Welded~~

Guides at _____ ft. & _____ ft.

Screen: Inside Diameter 5 in.

Type of material & grade 200# PVC

Screen Interval(s):
104 ft. to 124 ft.

Slot size .013 Type Saw slot

Trade name _____ Guides at _____ ft.

Bottom Cap: Type None Size _____ in.

Gravel Pack Interval(s):
100 ft. to 124 ft.

_____ ft. to _____ ft.

_____ ft. to _____ ft.

Gravel size 47-B Amount 750#

Grout:
6 to 10 ft. with Bentonite

30 to 35 ft. with Bentonite

_____ to _____ ft. with _____

Disinfection: Yes / No

Was a chemical / bacteriological analysis obtained? No / Yes (Date _____)

Pump: Installed ~~XXX~~ / No Recommended pump setting 120 ft. Recommended pumping rate 10 GPM

Pump Installer Harper

Remarks _____

MDS Harris

624 Peach Street
Lincoln, NE 68502

Tel: 402-476-2811
www.turf.mds-harris.com

**WATER
ANALYSIS**

Submitted For
JAKE WHITEFOOT
MARTELL, NE 68404

SAMPLE MARKED
6
LABORATORY NUMBER
C47C1906

Submitted By
Gans Trucking & Excavating
2200 W. Panama Road
Martell, NE 68404

Nature Meadows
Lot 4

DATE RECEIVED
22-Sep-2004
DATE REPORTED
23-Sep-2004

ANALYSIS OF CHEMICAL PROPERTIES			YOUR RESULTS			RATING OF YOUR RESULTS		
			UNIT OF MEASURE	RESULT	LBS/ ACRE FOOT	SATISFACTORY	POSSIBLE PROBLEM	PROBABLE PROBLEM
WATER CAPACITIES, ETC.	pH	---	---	7.9	---			
	Hardness	---	---	307.8	---			
	Bicarbonate	ppm	---	422.1	1147.8			
	Carbonate	ppm	---	0.0	0.0			
IMPACT ON GENERAL PLANT GROWTH	Electrical Conductivity (ECw)	mmhos/cm	---	1.00	---			
	Total Soluble Salts	ppm	---	640	1741			
IMPACT FROM ROOT CONTACT	Sodium	meq/l	---	2.39	---			
	Chloride	ppm	---	32	87			
	Boron	ppm	---	0.01	0.00			
IMPACT FROM FOLIAGE CONTACT	Sodium	ppm	---	55.0	150.0			
	Chloride	ppm	---	32	87			
IMPACT ON SOIL STRUCTURE	Sodium Absorption Ratio Adj	meq/l	---	3.31	---			
	Electrical Conductivity (ECw)	mmhos/cm	---	1.00	---			
	Total Soluble Salts	ppm	---	640	1741			
To maintain good soil structure in arid regions, irrigation water should have the capacity to replace the soluble salts being dissolved. If the salts being dissolved are not replaced, a decrease in permeability may occur.						No anticipated difficulty with most crops.	Some difficulty for sensitive & moderately sensitive crops	Significant difficulty for most crops

ANALYSIS OF NUTRIENTS						
PLANT NUTRIENTS AS NORMALLY REPORTED IN WATER ANALYSIS	RESULTS AS PPM	NUTRIENTS CONVERTED TO BASIC FERTILIZER MATERIAL FORMS	RESULTS LBS/ACRE FOOT	MEQ/LITER		
NITRATE (NO ₃ ⁻)	1.85	NITROGEN (N)	5.10	CATIONS	K+	0.03
PHOSPHATE (PO ₄)	0.01	PHOSPHATE (P ₂ O ₅)	0.02		NA+	2.39
POTASSIUM (K)	1.00	POTASH (K ₂ O)	3.20		CA++	4.64
MAGNESIUM (Mg)	18.0	MAGNESIUM OXIDE (MgO)	81.0		Mg++	1.46
CALCIUM (Ca)	52.0	CALCIUM (Ca)	253.0	ANIONS	CL-	0.90
SULFATE (SO ₄)	148.0	SULFUR (S)	133.2		SO4--	3.08
MANGANESE (Mn)	0.50	MANGANESE (Mn)	1.35		HCO3-	6.92
IRON (Fe)	0.30	IRON (Fe)	0.32		CO3--	0.00
BORON (B)	0.01	BORON (B)	0.03		PO4---	0.00
					NO3-	0.13

pHc 5.99
TOTAL CATIONS 8.54
TOTAL ANIONS 11.04
SAR 1.37

**LINCOLN-LANCASTER COUNTY HEALTH DEPARTMENT
INTER-OFFICE COMMUNICATION**



TO: Mike DeKalb

DATE: October 12, 2004

DEPARTMENT: Planning

FROM: Chris Schroeder

ATTENTION:

DEPARTMENT: Health

CARBONS TO: EH File
EH Administration

SUBJECT: Nature Meadows
SP #04056 PP #04026

The Lincoln-Lancaster County Health Department (LLCHD) has reviewed the proposed development with the following noted:

- According to the LLCHD's Geographic Information System (GIS) records, two underground eight inch pipelines may bisect this proposed development. One underground pipeline transports anhydrous ammonia and one transports propane. See the attached GIS map for an approximate location of these underground pipelines. The current site plan does not depict these underground pipelines or their respective easements. The LLCHD strongly encourages the applicant to contact Mid- America Pipeline Company to locate these underground pipelines. The LLCHD requests to review an updated site plan with accurate locations of any underground pipelines in this proposed development before any further comment on this issue.
- The developer proposes the use of individual wastewater systems. Lagoons or septic systems may be installed based on percolation test results and LLCHD approval. Flood plain and frequently flooded soils that may have a high groundwater table exist extensively on Lot 1 and Lot 2. It appears adequate area exists to avoid these areas with proper planning and site layout.
- The developer proposes the use individual water wells. The water report indicates that an adequate supply of water should be available. The water report indicates the water is potable but many homeowners would opt for softening because of hardness and iron-manganese.
- An old well exists near the existing supply well on Lot 1. This well should be properly decommissioned. The Lower Platte South Natural Resource District may be able to provide assistance.

- During the construction process, the land owner(s) will be responsible for controlling off-site dust emissions in accordance with Lincoln-Lancaster County Air Pollution Regulations and Standards Article 2 Section 32. Dust control measures shall include, but not limited to application of water to roads, driveways, parking lots on site, site frontage and any adjacent business or residential frontage. Planting and maintenance of ground cover will also be incorporated as necessary.
- According to the site plan, buildings are slated to be removed. Prior to demolition, an asbestos survey must be conducted for both structures and ten or more working days prior to demolition a notification of demolition must be provided to the LLCHD. These are federal Environmental Protection Agency (EPA) requirements related to asbestos removal/demolition activities. Documentation related to this matter should be submitted to Harry LeDuc with the LLCHD at 3140 N Street, Lincoln, NE 68510. Mr. LeDuc can be contacted at 441-8034.



Legend

- Streets
- Pipelines
- Parcels

Nature Meadows



0 160320 640 960 1,280
Feet